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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/675,201	09/29/2000	Sanae Tagami	197893US0	1428

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EXAMINER

GARRETT, DAWN L

ART UNIT	PAPER NUMBER
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1774

DATE MAILED: 12/02/2002

10

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/675,201

Applicant(s)

TAGAMI ET AL.

Examiner

Dawn Garrett

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**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 September 2002.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10-12 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 September 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
 a) ☒ All   b) ☐ Some \*   c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>9</u> . | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Response to Amendment***

1. This Office action is in response to the amendment dated September 19, 2002, paper no. 8. Claim 1 was canceled. Claims 2-10 were amended. Claims 11 and 12 were added. Claims 2-12 are now pending.
2. The objections to claims 5 and 6 set forth in paper no. 5, paragraph 9, are withdrawn.
3. The rejection of claims 1-3 and 10 under 35 USC 102(a) as being anticipated by Nakatsuka et al. (JP 10-340782) is withdrawn due to the amendment.
4. The rejection of claims 4, 7, and 8 under 35 USC 103(a) as being unpatentable over Natatsuka et al. (JP 10-340782) is withdrawn due to the amendment.
5. Claim 9 remains objected to as set forth in paper no. 5, paragraph 10, as dependent upon as rejected base claim.

### ***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:  

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
7. Claims 2-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
8. In claims 2 and 10, the added limitation "with the exception that the combination of substituted group X13 and X14, X3 and X4, X10 and X11, and X6 and X7 with any ring structure in the general formula 3" is confusing. The phrase "combination...with

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any ring structure" is confusing. It appears the applicant desires compound 3 to exclude the previously recited limitation wherein "X1 – X20 may form a cyclic structure in combination". Clarification and/or correction is required.

9. In new claim 12, the limitation "and which emits reddish light" is confusing. It is not clear if the hole transporting layer emits reddish light, the light emitting layer emits reddish light, both the hole transporting layer and the light emitting layer emit reddish light, or if the EL device as a whole emits reddish light. Clarification and/or correction are required.

10. In claim 11, "and" in the phrase "at least one of a hole transporting layer and a light emitting layer" should be changed to "or" for proper form.

11. In claim 12, "at least one hole transporting layer and a light emitting layer" should be changed to "at least one of a hole transporting layer or a light emitting layer" for proper form.

***Claim Rejections - 35 USC § 102***

12. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

13. Claims 1-6 and 10-12 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakatsuka et al. (JP 10-168445). Nakatsuka discloses an organic compound layer between a pair of electrodes comprising formula (2), which reads upon instant species compound 3 (see Japanese patent page (3)). The derivative according to the formula is

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suitable as a hole-injection transportation component or as a luminescent component per instant claims 3, 11, and 12 (see JPO translation paragraph [0019] for reference). A mixed luminous layer containing the derivative is taught per instant claim 4 (see paragraph [0026] and [0046]). Nakatsuka et al. teach a protective layer may be applied to an electrode which comprises an inorganic material such as a metal oxide per instant claims 5 and 11 (see paragraph [0037]). Per instant claims 6 and 12, Nakatsuka teaches a multicolored device that may comprise red dyes such as rubrene or Nile red as part of the luminous layer (see paragraph [0026]). Nakatsuka is deemed to anticipate all the limitations of claims 1-6 and 10-12.

***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakatsuka et al. (JP 10-168445). Nakatsuka et al. is relied upon as set forth above for the rejection of independent claim 2. Nakatsuka et al. fails to teach the organic layer containing formula (2) may also contain isomers of formula (2). An isomer of formula (2) is an obvious variant of formula (2). It would be obvious to one of ordinary skill in the art to incorporate formula (2) and isomers thereof with a reasonable expectation of success, because an isomer of formula (2) would be expected to perform the same hole

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transporting and luminescent functions as formula (2). Furthermore, the Nakatsuka teaching of formula (2) clearly discloses isomeric compounds (various substituent possibilities for X1 – X14); it have been obvious to have used derivatives taught for the same purpose in combination. In addition, because formula (2) is the same as applicants' compound 3, the wavelength properties cited in claim 8 are deemed to be inherent properties of formula (2) and isomers thereof. Accordingly, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to have made a device as recited in instant claims 7 and 8, because all limitations of these claims are generally taught by Nakatsuka et al.

### ***Response to Arguments***

16. Applicant's arguments with respect to claims 1-10 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

17. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

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extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dawn Garrett whose telephone number is (703) 305-0788. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia Kelly can be reached on (703) 308-0449. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2351.

CYNTHIA H. KELLY  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1700



D.G.  
November 25, 2002